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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,532	11/25/2003	Christoph Erbacher	QGN-008.1 US-2	5346
7590	12/20/2005		EXAMINER	
Leon R. Yankwich YANKWICH & ASSOCIATES 201 Broadway Cambridge, MA 02139			RIGGINS, PATRICK S	
			ART UNIT	PAPER NUMBER
			1633	

DATE MAILED: 12/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/721,532	ERBACHER ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Patrick S. Riggins	1633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 25 November 2003.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 18-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 18-32 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>11/25/03</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## DETAILED ACTION

1. A Preliminary Amendment filed concurrently with the instant application is acknowledged. Original claims 1-17 were canceled and new claims 18-32 were added. Presently claims 18-32 are pending and under examination.

### *Information Disclosure Statement*

2. The three abstracts cited on the Information Disclosure Statement filed 11/25/03 have not been considered, as the references could not be located in the parent file. Such reference will not be considered until a copy of each reference is present in the file.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 18-20 and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by

Milieva (J Appl Toxicol 15: 219-222 (1995), newly cited).

5. The claims are drawn to a compound that falls within the structural parameters laid out in claim 18 and further limited in the dependent claims.

6. Milieva discloses (abstract) the use of N,N,N',N'-tetramethyl-N,N'-di(8,15-dicloropentadeca-5,10-dien)ethylenediamine methylsulphate. Thus, k=1, n=2, i.e. B=ethyl, R1, R3, R4, and R6 are each methyl, and R2 and R5 are each pentadecadienyl.

7. Claims 18-20, 23-25, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Sykora (Folia Microbiol 36: 240-245 (1991), newly cited).

8. Sykora discloses (abstract) the use of N,N'-bis(decyldimethyl)-1,6-hexanediammonium dibromide. Thus, k=1, n=6, i.e. B=hexyl, R1, R3, R4, and R6 are each methyl, R2 and R5 are each decyl, and A is bromide.

9. Claims 18-20, 23-25, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,022, 833.

10. The '833 patent discloses at column 5, lines 25-45, N,N'-(1,6,hexylene)-bis[2-hydroxyundecylamine] with a variety of counter ions, and at Examples 91 and 92 N,N'-(1,6-hexylene)-bis[[N,N'-dimethyl-2-hydroxyundecylammonium]dichloride. Thus, k=1, n=6, i.e. B=hexyl, R1, R3, R4, and R6 each are H or methyl, R2 and R5 are each undecyl, and A=chloride or phosphate.

11. Claims 18-20 and 23-27 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No 3,966,630.

12. The '630 patent discloses at examples C10-C12 molecules where k=1, n=2 or 4, i.e. B=ethyl or butyl, R1, R3, R4, and R6 are methylene phosphonate, R2 and R5 are each C<sub>12</sub>, C<sub>14</sub>, or C<sub>18</sub>, and A=bromide.

13. Claims 18-20, 23-25, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by GB1277086.

14. The '086 document discloses at examples 1-5, hexamethylenebis-(n-decyldimethylammonium)dibromide, hexamethylenebis-(n-dodecyldimethyl-ammonium)dibromide, hexamethylenebis-(n-octyldimethyl-ammonium)dibromide, hexamethylenebis-(n-nonyldimethyl-

ammonium)dibromide, and hexamethylenebis-(n-undecyldimethyl-ammonium)dibromide. Thus k=1, n=6, i.e. B=hexyl, R1, R3, R4, and R6 are each methyl, R2 and R5 are each octyl, nonyl, decyl, undecyl, or dodecyl, and A=bromide.

### ***Double Patenting***

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

16. It is noted that the restriction requirements in parent case 09/304,995, now U.S. Patent No 6,733,777, was twice vacated by the examiner. See the Office Actions of the 09/304,995 case dated 1/3/02 and 1/30/03. As such the prohibition against double patenting under 35 U.S.C 121 does not apply in the instant case.

17. Claims 18-26, and 28-32 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, and 17-28 of U.S. Patent No. 6,733,777 as follows: instant claims 18-20 over patent claims 1-3, respectively, instant claims 21-26 over

patent claims 17-22, respectively, and instant claims 28-32 over patent claims 24-28, respectively. Although the conflicting claims are not identical, they are not patentably distinct from each other because the methods of the patent claims use the compounds of the instant claim. Thus, in the absence of restriction requirement, the instant compounds are obvious in view of the patent methods.

*Conclusion*

18. No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick S. Riggins whose telephone number is (571) 272-6102. The examiner can normally be reached on M-F 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave T. Nguyen can be reached on (571) 272-0731. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick Riggins, Ph.D.  
Examiner  
Art Unit 1633



**DAVE TRONG NGUYEN  
SUPERVISORY PATENT EXAMINER**